After Sales Technical Documentation

NHA–2/4 AND NHX–2 NON–SERVICEABLE ACCESSORIES

Original, 46/95

NMP Part No. 0275039

AMENDMENT RECORD SHEET

Amendment Number	Date	Inserted By	Comments

NHA–2/4, NHX–2 NON–SERVICEABLE ACCESSORIES

Contents

List of Non–Serviceable Accessories Page 5
Battery Packs BBT–6L Page 5
Product Code Page 5
Specification Page 5
View of Battery Pack Page 5
Battery Pack BBT–6S and BBT–6E Page 6
Product Codes Page 6
Specification Page 6
View of Battery Pack Page 6
Battery Pack BBT–6H Page 7
Product Code Page 7
Specification Page 7
View of Battery Pack Page 7
Standard Charger ACH–8 Page 8
Product Codes Page 8
Specification Page 8
View of Standard Chargers Page 9
Fast & Light Charger ACH–6 Page 10
Product Codes Page 10
Specification Page 10
View of Fast & Light Chargers Page 11
Basic Stand CGH–3 Page 12
Product Code Page 12
Specification Page 12
View of Basic Stand Page 12
Desktop Stand CGH–4 Page 13
Product Code Page 13
Specification Page 13
View of Desktop Stand Page 14
Phone Holder MBT–3 Page 15
Product Code Page 15
Specification Page 15
View of Phone Holder Page 15
Mounting Plate MKE–7 Page 16
Product Code Page 16
Specification Page 16
View of Mounting Plate Page 16

Swivel Mounting Plate HHS–6 Page 17
Product Code Page 17
Specification Page 17
View of Swivel Mounting Plate Page 17
Rapid Cigarette Lighter Charger LCH–6 Page 18
Product Code Page 18
Specification Page 18
View of Rapid Cigarette Lighter Charger Page 19
Mobile Installation Charger LCM–1 Page 20
Product Code Page 20
Specification Page 20
View of Mobile Installation Charger Page 20
Power Cable PCM–5 Page 21
Product Code Page 21
Specification Page 21
View of Power Cable Page 21
Handset HSU–2 Page 22
Product Code Page 22
Specification Page 22
View of Handset HSU–2 Page 23
Headset HDC–2 Page 24
Product Code Page 24
Specification Page 24
View of Headset Page 25
Headset Adapter HDA–4 Page 26
Product Code Page 26
Specification Page 26
View of Headset Adapter Page 26
Handsfree Microphone HFM–7 Page 27
Product Code Page 27
Specification Page 27
View of Handsfree Microphone Page 27
External Antenna Adapter AAE–1 Page 28
Product Code Page 28
Specification Page 28
View of Antenna Adapter Page 28

List of Non–Serviceable Accessories

Battery Packs BBT–6L

The BBT–6L NiMH light battery pack provide an acceptable level of performance in a package (ie including phone) weighting 228 g.

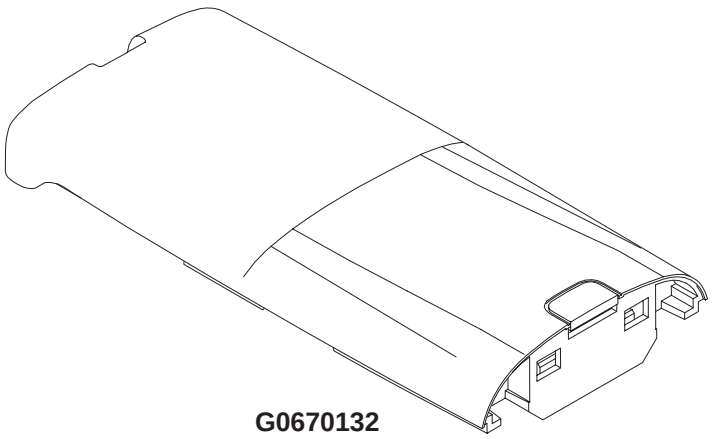
Product Code

Battery pack BBT–6L:	*0670132*

Specification

Dimensions (h x w x d):	*56 x 115 x 17 mm*
Weight:	*90 g*
Capacity:	*470 mAh*

View of Battery Pack



G0670132

Battery Pack BBT–6S and BBT–6E

The BBT–6S NiCd standard battery pack and BBT–6E NiMH extended battery pack provide the best compromise between weight and performance for the average user. A standard package (ie including phone) weights 253 g and an extended package 263 g.

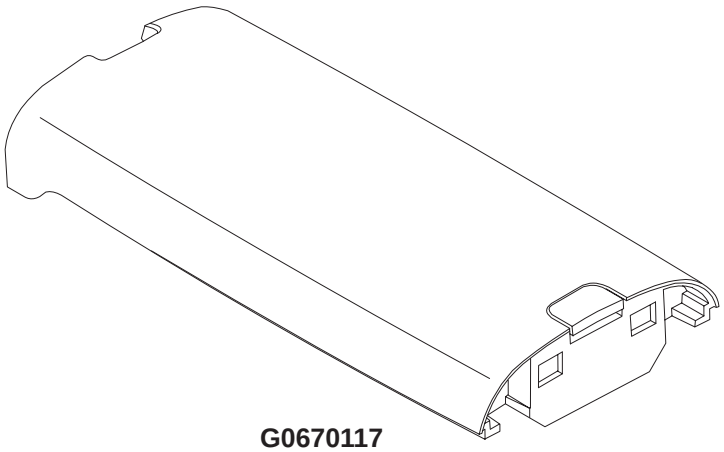
Product Codes

Battery pack BBT–6S:	*0670117*
Battery pack BBT–6E:	*0670118*

Specification

Dimensions (h x w x d):	*56 x 115 x 17 mm*
Weight	
• BBT–6S:	*115 g*
• BBT–6E:	*125 g*
Capacity	
• BBT–6S:	*950 mAh*
• BBT–6E:	*1200 mAh*

View of Battery Pack



G0670117

Battery Pack BBT–6H

The BBT–6H NiMH heavy battery pack is slightly larger than standard/extended battery pack. It provide a significant increase in performance in terms of talk and standby times. An heavy package weights (ie including phone) 298 g.

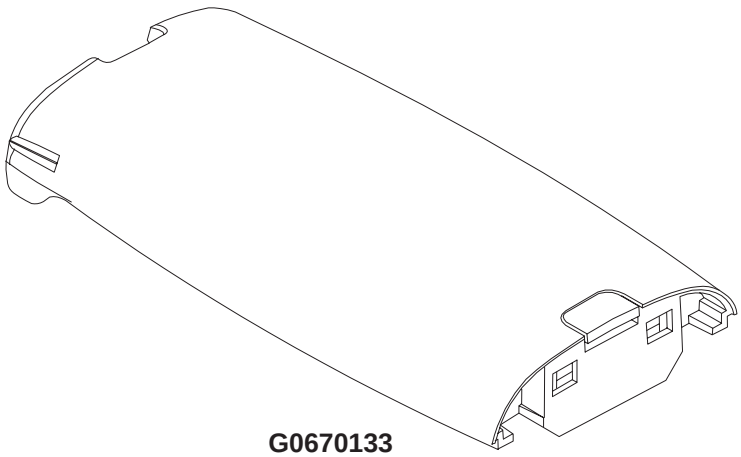
Product Code

Battery pack BBT–6H:	*0670133*

Specification

Dimensions (h x w x d):	*56 x 115 x 26.5 mm*
Weight:	*160 g*
Capacity:	*1700 mAh*

View of Battery Pack



G0670133

Standard Charger ACH–8

Use this durable and economical charger to charge all battery options – simply plug the charger into a wall outlet and connect the connector to the bottom of your phone. Check the charging status on the phone display.

The charging time is about 2 h 30 for the 470 mAh battery.

You can make calls while charging. However, charging is suspended for the duration of the call.

Standard charger is available for different voltage levels and comes with different wall plugs.

Standard charger can also be used as a power supply for the basic stand and desktop stand.

Product Codes

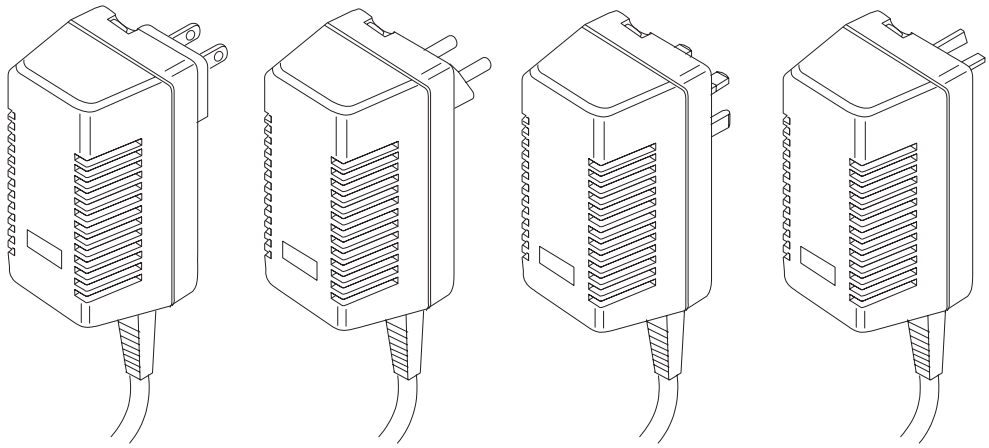
Standard charger ACH–8U (USA plug):	*0675091*
Standard charger ACH–8E (Euro plug):	*0675089*
Standard charger ACH–8X (UK plug):	*0675090*
Standard charger ACH–8A (Australia plug):	

Specification

Dimensions (h x w x d):	*86 x 50 x 44 mm (without plug)*
Weight:	*< 300 g*
Cable lenght:	*1950 mm*
Mains plug type:	*see picture*
Output connectors:	*3.0 mm standard d.c. plug*
Protection:	*output current limiting, max. 300 mA* *output voltage limiting, max. 16 V (unloaded)*
Input voltage:	*180 to 250 V (110 V ACH–8U)*

View of Standard Chargers

ACH–8U ACH–8E ACH–8X ACH–8A



S0001160

Fast & Light Charger ACH–6

Extremely light, functionally designed fast & light charger charges your phone battery quickly.

Plug the charger into a wall outlet and connect the connector to the bottom of your phone. When not using the charger, you can wrap the cord around it and attach the loose end to the slot on top.

The charging time is approximately 45 minutes for the 470 mAh battery. Check the charging status on the phone display. You can use your phone also while charging.

Operating within voltage range 90 V...250 V AC (50 Hz...60 Hz), fast & light charger is practically current independent in normal office and household use. Like standard charger, fast & light charger is compatible with all battery options and is available with different wall plugs.

The fast & light charger can also be used with basic stand and desktop stand.

Product Codes

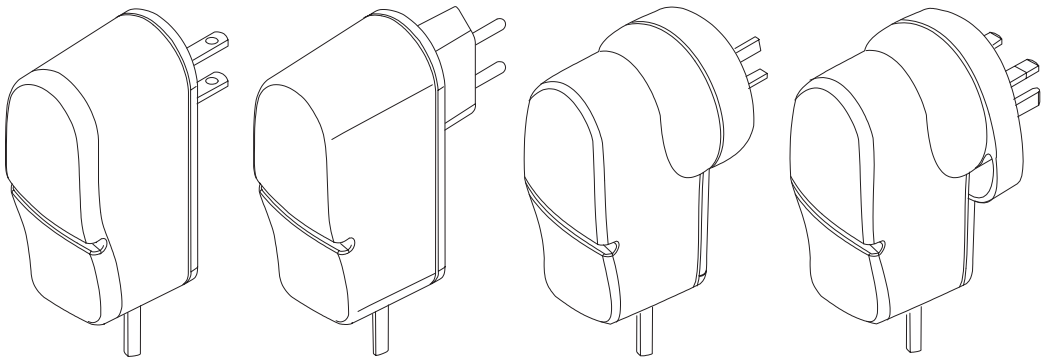
Fast & light charger ACH–6U (USA plug):	*0675085*
Fast & light charger ACH–6E (Euro plug):	*0675084*
Fast & light charger ACH–6X (UK plug):	*0675087*
Fast & light charger ACH–6A (Austr. plug):	*0675086*
Output cable PCC–1 (supplied with ACH–6):	*0730076*

Specification

Dimensions (h x w x d):	*75 x 29 x 42 mm (without plug)*
Weight:	*< 150 g*
Output cable lenght:	*1950 mm*
Mains plug type:	*see picture*
Output connectors:	*3.0 mm standard d.c. plug*
Protection:	*output current limiting, max. 870 mA output voltage limiting, max. 11 V (unloaded)*
Input voltage:	*90 to 250 V*

View of Fast & Light Chargers

ACH–6U ACH–6E ACH–6X ACH–6A



S0001161

Basic Stand CGH–3

This charging stand is an economical choice for users who wish to have their phone close at hand, always ready for calls.

Charging times for the 470 mAh battery are approximately 2 h 30 or 45 min, depending on the charger used. The basic stand is used together with the standard charger or fast & light charger.

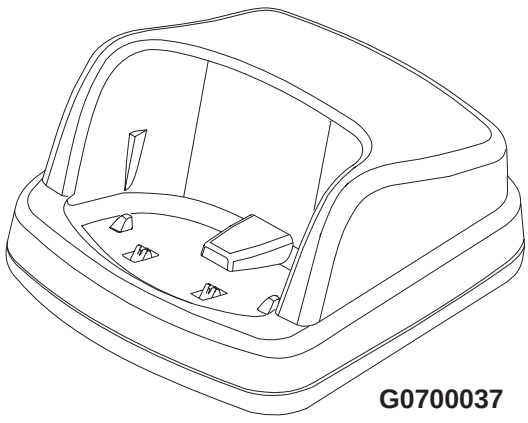
Product Code

Basic stand CGH–3:	*0700037*

Specification

Dimensions (h x w x d):	*42 x 75 x 80 mm*
Weight:	*40*
Connections:	*3.0 mm d.c. jack*
Charge control:	*none*
Maximum input voltage:	*16 V*
Maximum input current:	*820 mA/10.8 V*
Protection:	*no damage if chort circuit in output*

View of Basic Stand



G0700037

Desktop Stand CGH–4

The desktop stand provides mounting place for both the phone and a spare battery.

Charging order is the phone battery first, and then the spare battery. Check the charging status of the phone battery on the phone display.

Compatible with all battery options, the desktop stand is used together with the standard charger or fast & light charger. Charging times for the 470 mAh battery are approximately 45 min or 2 h 30, respectively.

In addition, the desktop stand offers a discharging facility for the spare battery. Discharging helps extend battery life. Place the spare battery in the stand and press the discharge button. When the battery is totally discharged, recharging will begin automatically. You can also stop discharging before it is finished by pressing the button again. Recharging will begin immediately.

The discharge button is equipped with LED indication for the spare battery. A blinking red light indicates discharging. A continuous red light indicates recharging, and a green light indicates the spare battery is full. Charge until the light turns green.

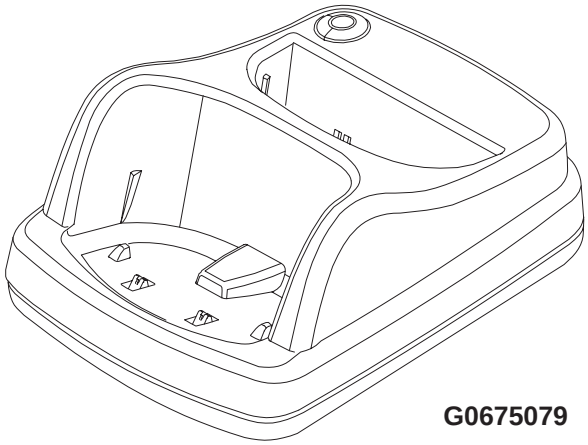
Product Code

Desktop stand CGH–4:	*0675079*

Specification

Dimensions (h x w x d):	*43 x 75 x 100 mm*
Weight:	*70 g*
Connections:	*3.0 mm d.c. jack*
Charge control:	*cell voltage (peak or negative change), time control, cell temperature*
Operation input voltage:	*9...16 V*
Max. input current:	*780 ±40 mA*
Discharge current:	*308...360 mA*
Discharge end voltage:	*4 V ±7 %*
Protection:	*no damage if chort circuit in output*

View of Desktop Stand



G0675079

Phone Holder MBT–3

Designed to fit and complement your car’s interiors, phone holder holds your phone firmly in place by its three–point hold and stiff structure.

The phone holder is attached to the vehicle’s interior using mounting plate, MKE–7 or alternatively swivel mounting plate, HHS–6.

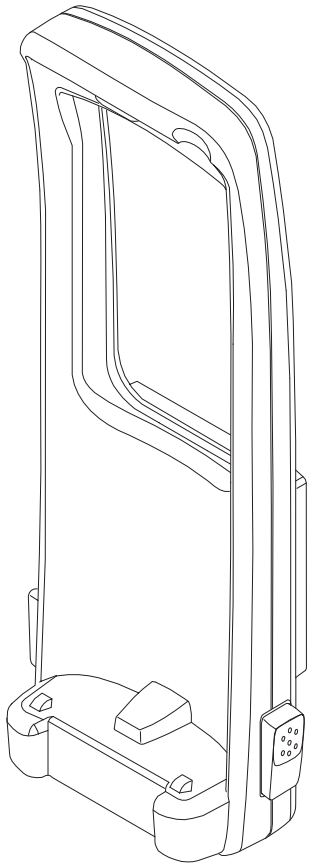
Product Code

Phone holder MBT–3:	*0620027*

Specification

Dimensions (h x w x d):	*186.5 x 59.5 x 40 mm*
Weight:	*80 g*

View of Phone Holder



G0620027

Mounting Plate MKE–7

The MKE–7 mounting plate provides a method of fixing the phone holder, the compact handsfree unit or the handset to the vehicle interior.

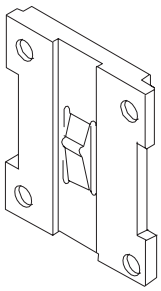
Product Code

Mounting plate MKE–7:	*0650021*

Specification

Dimensions (h x w x d):	*7.3 x 45 x 48 mm*
Weight:	*8 g*

View of Mounting Plate



G0650021

Swivel Mounting Plate HHS–6

The HHS–6 swivel mounting plate provides an alternative (to MKE–7) method of locating the phone holder, the compact handsfree unit or the handset.

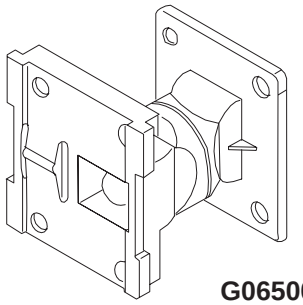
Product Code

Swivel mounting plate HHS–6:	*0650019*

Specification

Dimensions (h x w x d):	*20 x 44 x 48 mm*
Weight:	*30 g*

View of Swivel Mounting Plate



G0650019

Rapid Cigarette Lighter Charger LCH–6

The multivoltage rapid cigarette lighter charger ensures your phone is always ready for use wherever you travel. This small charger's functional design fits well to most car lighters and interiors.

The charging time for the 470 mAh battery is about 45 minutes, and you can use your phone freely during charging.

A green light indicates that the cigarette lighter charger is ready for charging. Check the charging status on the phone display. The input voltage can be 12 or 24 V d.c., negative grounding.

Rapid cigarette lighter charger can be used with all car accessories provided for your phone.

Avoid prolonged charging with cigarette lighter charger when the car engine in not running; this may cause the battery of your car to drain. Note also that in some cars the cigarette lighter plug is not provided with electricity if the ignition is switched off. Verify that the green led light is lit.

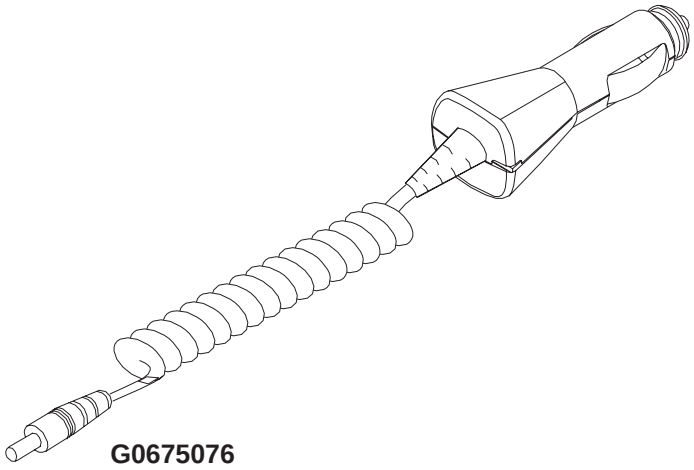
Product Code

Rapid cigarette lighter charger LCH–6:	*0675076*

Specification

Dimensions (h x w x d):	*29 x 35 x 84 mm*
Weight:	*< 70 g*
Cable lenght:	*465 mm curly cable*
Connectors	
• input:	*D 21/23 mm*
• output:	*3.0 mm standard d.c. plug*
Protection:	*input fused, output current limit*
Voltage	
• input:	*11.3...35 V*
• output (nominal):	*10.3 V*
Nominal output current:	*780 mA*
Charging into empty battery:	*>= 300 mA*

View of Rapid Cigarette Lighter Charger



G0675076

Mobile Installation Charger LCM–1

The multivoltage mobile installation charger powers your phone from the car battery when the ignition is switched on and leaves the cigarette lighter vacant.

You can use the mobile installation charger in any vehicle with a 12 or 24 V d.c. connection, negative grounding.

The charging time for the 470 mAh battery is only about 45 minutes.

Fixed charger housing has a four pin connector for power cable, and on the opposite end a connector for the output cable, which connects the fixed charger directly to the d.c. connector of your phone or to the compact handsfree unit.

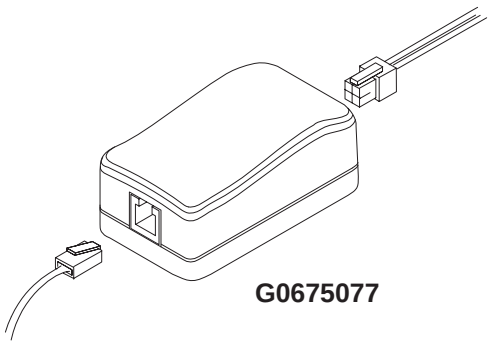
Product Code

Fixed charger LCM–1:	*0675077*
Output cable PCC–1 (supplied with LCM–1):	*0730076*

Specification

Dimensions (h x w x d):	*27 x 36 x 65 mm*
Weight:	*< 70 g*
Output cable lenght:	*1950 mm*
Protection:	*input fused, output current limit*
Voltage	
• input:	*11.3...32 V*
• output (nominal):	*10.3 V*
Output current nominal:	*780 mA*
Charging into empty battery:	*>= 300 mA*

View of Mobile Installation Charger



G0675077

Power Cable PCM–5

The power cable connects the mobile installation charger, LCM–1, to the vehicle's power supply. The red wire must be connected to the + voltage supply controlled by the vehicle's ignition key via the supplied fused connector. The black wire must be attached to a good negative GND connection.

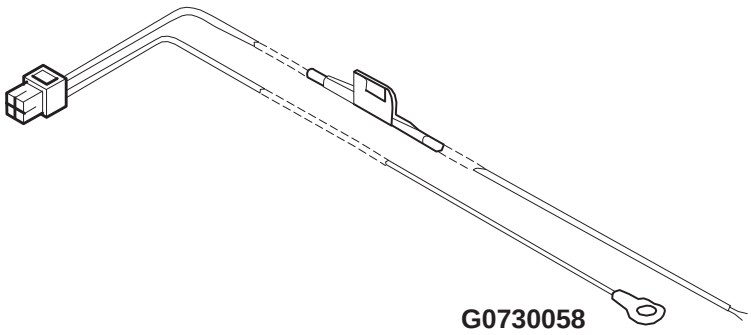
Product Code

Power cable PCM–5:	*0730058*

Specification

Weight:	*74 ±5 g*
Cable lenght	
• red wire:	*2500 ±100 mm*
• black wire:	*2000 ±50 mm*
Max current via contacts:	*1 A*

View of Power Cable



G0730058

Handset HSU–2

A simple handset with no display or keypad, the handset provides privacy for conversation.

Connect the handset to the bottom of compact handsfree unit PHF–5. The connector is marked with .

When you lift handset from its holder, the HF loudspeaker and HF microphone will be muted and you can speak in privacy. When you replace the handset in its cradle, the call is terminated. However, you can press the Menu selection key of your phone a few seconds before you replace the handset to retain the call and return to handsfree mode.

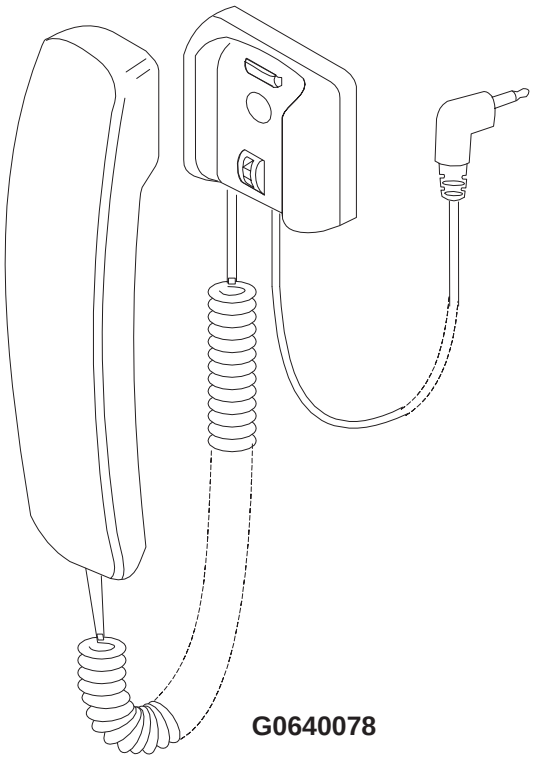
Product Code

Handset HSU–2:	*0640078*

Specification

Dimensions (h x w x d)	
• handset:	*25 x 36 x 181 mm*
• cradle:	*25 x 49 x 54 mm*
Weight	
• handset:	*120 g*
• cradle:	*25 g*
Cable lenght	
• handset:	*0.4 m*
• cradle:	*2 m*
Handset connector:	*2.5 mm stereo plug*
Input signal level:	*31 mV_{RMS}*
Earpiece sound pressure:	*–7 dBPa*
Microphone sound pressure:	*–9 dBPa*
Output signal level:	*0.85 mV_{RMS}*

View of Handset HSU–2



Headset HDC–2

Compact and functional, headset kit HDXK–7 (headset adapter HDA–4 and headset HDC–2) provides you with a convenient handsfree facility which you can use anywhere.

Connect headset adapter HDA–4 to the bottom of your phone, and plug the headset HDC–2 to the adapter.

In car use, you can connect the headset directly to the compact handsfree unit. (The headset adapter is not required under this configuration.) When used with external antenna adapter, this combination provides you with handsfree operation, privacy and optimum reception quality. When the headset is connected, the HF loudspeaker and microphone are disabled.

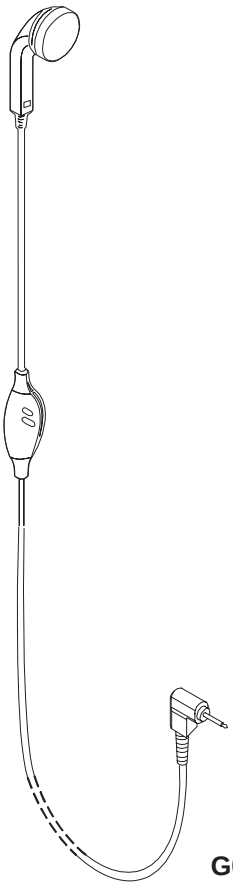
Product Code

Headset HDC–2:	*0694017*

Specification

Cord lenght :	*1500 ±50 mm*
Weight:	*13 g*
Microphone sensitivity:	*–46.5 ±5 dB (0 dB = 1 V/Pa at 1 kHz)*
Microphone directionality:	*Omni–directional*
Microphone supply voltage:	*5 V*
Earphone rated/max input:	*1 mW/5 mW*
Earphone sound pressure:	*106 ±5 dB (at 1 kHz, 1 mW)*
Impedance	
• microphone:	*max 2.2 kΩ at 1 kHz*
• earphone:	*32 ±7 Ω*

View of Headset



G0694017

Headset Adapter HDA–4

The headset adapter provides connections between the headset, power supply and the phone. The adapter plugs into the base of the phone.

Note: When using the headset adapter, connect your charger to the adapter if you need to charge your phone.

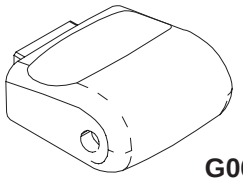
Product Code

Headset adapter HDA–4:	*0694042*

Specification

Dimensions (h x w x d):	*28 x 29 x 13.3 mm*
Weight:	*10 g*
Gain	
• microphone:	*33.5 dB*
• earphone:	*0 dB*
Sound pressure	
• microphone:	*–16...+3 dBPa (0 dBPa = 94 dB spl)*
• earphone:	*0 dBPa...+23 dBPa*
Level at headset connector:	
• microphone:	*1.3...11.6 mV*
• earphone:	*16...220 mV*

View of Headset Adapter



G0694029

Handsfree Microphone HFM–7

The HFM–7 microphone forms part of compact handsfree unit.

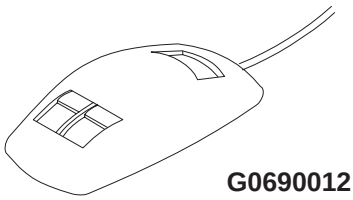
Product Code

Handsfree microphone HFM–7:	*0690012*

Specification

Dimensions (h x w x d):	*16 x 24 x 43 mm*
Weight:	*?*
Cable lenght:	*3.0 m*
Holders:	*double sided tape and screws*
Connector:	*2.5 mm plug, angle type*
Sensitivity curve:	*hypercardioid*
Bias supply voltage:	*1.5...8 V*
Bias supply current:	*100...500 µA*
Acoustical operating range (THD<1 %):	*35...110 dB SPL (–56...+16 dBa)*
Sensitivity:	*–41±4 dBV/Pa at 1 kHz, front signal (measured with mic assembled on hard plate, 30 x 30 cm)*
Noise (IHF–A weighting):	*<9 µV*

View of Handsfree Microphone



G0690012

External Antenna Adapter AAE–1

The external antenna adapter allows an external antenna to be capacitively coupled to the phone's antenna when the phone is located in the mobile holder. The external antenna adapter is fastened to the top of the holder with two screws.

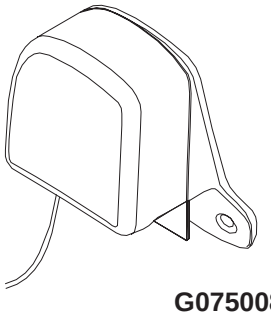
Product Code

External antenna adapter AAE–1:	0750080

Specification

Dimensions (h x w x d):	*?*
Weight:	*?*
Connection:	*Mini UHF/50 Ω*
Cable lenght:	*750 mm coaxial cable*
Insertion loss:	*< 4 dB*

View of Antenna Adapter



G0750080

This page intentionally left blank.

This page intentionally left blank.